REMARKS/ARGUMENTS

In the Office Action issued March 25, 2004, claims 1-17 were rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. Claims 1-52 were rejected under 35 U.S.C. §103(a) as being unpatentable over Fong, U.S. Patent No. 6,704,747 (Fong).

Claims 1-52 are now pending in this application. Claim 1 has been amended in response to the rejection under 35 U.S.C. §101.

The present invention is not anticipated by, nor obvious in view of, the references relied upon in the Office Action, as the prior art references do not disclose or suggest the claimed features of the present invention.

The Applicant respectfully submits that the present invention according to claims 1-52 is not obvious in view of Fong. Fong discloses a system for providing access to a relational database using object-oriented structural query language ("OSQL") that includes: a relational database management system ("RDBMS") providing access to the relational database via structural query language ("SQL"); an open object database connectivity ("OODBC") system connected to the RDBMS and configured to receive input from a user, the OODBC system having a frame model representation of the relational database; and an object frame model agent ("OFMA"). The OFMA is configured to receive an OSQL query from a user, convert the received OSQL query into an SQL query with reference to the frame model, and forward the SQL query to the RDBMS. The frame model has:

static frameworks including a header class framework and an attribute class framework; and active frameworks including a method class framework and a constraint class framework.

Fong mentions data mining twice – once to indicate that data mining is one application that may make use of Fong's system (col. 4, line 64 to col. 5, line 2), and once to indicate that the system uses additional data gathered from data mining (col. 29, lines 22-25).

By contrast, the present invention, for example, according to claim 1, requires a second layer implementing data mining functionality comprising a data mining object repository maintaining data mining metadata, a plurality of data mining project objects, each data mining project object containing data mining objects created and used by a user, a plurality of data mining session objects, each data mining session object containing data mining processing performed on behalf of a user, a plurality of data mining tables, each data mining table mapping a table or a view in a database, a plurality of data transformation objects, each data transformation object defining computations or manipulations to be performed on data in the database, a plurality of data mining models, each data mining model implementing conditions and decisions, and a plurality of data mining result objects, each data mining result object generated as a result of scoring or analyzing a data mining model or an input dataset.

Regarding the recited second layer implementing data mining functionality, Fong does not disclose a layer of an API implementing data mining functionality. Fong does disclose an API for a frame model database. The disclosed frame model database provides no disclosure of data mining.

Regarding the recited data mining object repository maintaining data mining metadata, Fong discloses a frame model as a meta data structure with two types of classes having a common structure: static classes and active classes. This provides no disclosure of data mining.

Regarding the recited plurality of data mining project objects, each data mining project object containing data mining objects created and used by a user, Fong discloses translation from legacy database to frame model database implemented using Data Manipulation Language ("DML") substitution where each legacy DML is translated into corresponding embedded-SQL cursor on one-to-one basis. The schemas of several different legacy databases are translated into respective frame model schemas and then integrated into a Global Frame Model schema using data querying. The data associated with the heterogeneous databases is converted to a respective frame model RDB according to the associated frame models. The global frame model schema and the universal frame model databases are then integrated using a frame model RDBMS to thereby form a universal database. Fong does not disclose data mining or data mining project objects containing data mining objects.

Regarding the recited plurality of data mining session objects, each data mining session object containing data mining processing performed on behalf of a user, Fong discloses queries generated by users. Fong does not disclose does not disclose data mining, data mining sessions, data mining session objects, or data mining processing.

Regarding the recited plurality of data mining tables, each data mining table mapping a table or a view in a database, Fong discloses data tables, but Fong does not disclose data mining or tables storing data mining data.

Regarding the recited plurality of data transformation objects, each data transformation object defining computations or manipulations to be performed on data in the database, Fong discloses classes objects, which are unrelated to data transformation objects and discloses certain computations performed on data. Fong does not disclose data transformation objects and Fong does not disclose data transformation objects defining computations or manipulations to be performed on data used for data mining.

Regarding the recited plurality of data mining models, each data mining model implementing conditions and decisions, Fong discloses a schema translation process that maps the entities of a legacy database into a frame model. The disclosed schema translation process is unrelated to the claimed data mining models that implements conditions and decisions.

Regarding the recited plurality of data mining result objects, each data mining result object generated as a result of scoring or analyzing a data mining model or an input dataset, as the Examiner states, Fong does not disclose this claimed subject matter. Fong discloses uniquely identified objects in a database and analyzing the database data. Fong does not disclose data mining or generating data mining results as a result of scoring or analyzing a data mining model.

Thus, the present invention according to claim 1, and according to claims 18, and 36, which are similar to claim 1, and according to claims 2-17, 19-35, and 37-52, which depend therefrom, is not obvious in view of Fong.

In view of the above, it is respectfully submitted that the present invention is allowable over the references relied upon in the Office Action. Accordingly,

favorable reconsideration of this case and early issuance of the Notice of Allowance are respectfully requested.

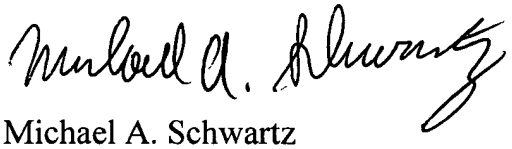
Additional Fees:

The Commissioner is hereby authorized to charge any insufficient fees or credit any overpayment associated with this application to Deposit Account No. 19-5127 (19111.0012).

Conclusion

In view of the foregoing, all of the Examiner's rejections to the claims are believed to be overcome. The Applicants respectfully request reconsideration and issuance of a Notice of Allowance for all the claims remaining in the application. Should the Examiner feel further communication would facilitate prosecution, he is urged to call the undersigned at the phone number provided below.

Respectfully Submitted,



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